Wildlife & Vegetation Tech Section Meeting March 26, 2024

Sign-up sheet being passed. 40 in attendance.

1:00 pm Call to order - Curt Kemmerer, IA DNR new tech section chair.
Round of all participant introductions.

Tech Section Representatives: IL-Jeff Horn (present), IA-Curt Kemmerer (present), MN-Brandon Schad (not present), MO-Troy Tallman (present), WI-Brenda Kelly (present)

Old Business
Review the fall meeting minutes.
Curt reviewed. See his notes attached at bottom.

Recreational Use Survey
Previous relevant work has been done. Look at old surveys to see methodologies.
Review recent email notes from Travis Moore (Fish Tech) for potential direction and discussion at this meeting. In summary, Travis is drafting a proposal.
Additional technology improvements could make capturing information more efficient.
Several states are working on mobile data collection.

Questions being asked:
What would we use this data for….
Communication for the variety of audiences

Motion:
The Wildlife & Vegetation Technical Section reviewed and supports the proposal being submitted to the Exec Board as outlined/authored by Travis Moore to contribute to a pilot survey.
In addition, the W&V Technical Section expresses interest collaborating on the development and execution of the pilot project. We request a team of cross technical section representatives that collaborate to evaluate results from the pilot survey and move forward with a larger and/or different geographical scope to see this project address the overall needs of the organization.

Motion: WI
Second: IL
Discussion: Suggested that in the future it would be wise to have a pool that would have low fishing tournaments as a comparison.
Those in favor: ALL
Those opposed: NONE

Neal Jackson UMRCC coordinator
PPT on UMRCC bylaws, who we are and what we do. (please pull from the ppt on what to incorporate).
Discussed how we are a state organization but is also inclusive to all partners that contribute and collaborate on river issues.
Discussed the potential from acquiring non profit status.
Neal's time is 25% contributions towards UMRCC although more time is spent with the organization.

Vegetation Sampling
Kyle Bales provided ppt on vegetation sampling overview, the history and initiation from pool wide surveys to targeted areas of surveillance.

2023 Efforts
Andy Meier (USACE)
Review of 2016-2019 widespread tree mortality resulting from long term inundation.
2023 mortality sampling summary:

Pools 9 and 10

Majority of mortality in Pool 9 is within Reno Bottoms.

Majority of mortality in Pool 10 is north and south of Prairie du Chien, WI

Fixed plot-based protocol.

Percent cover estimates of vegetation by species groups

Detailed counts of any regenerating tree seedlings

Basal area of standing live and dead trees

Photo sampling.

Objective to quickly evaluate what vegetation is present.

Thought, "if you take away the dead trees and look at the vegetation that is regenerating, it is actually pretty good!" – Andy Meier

Tree seedlings were mostly absent from plots.

Trees are not coming back in but these sites are not readily converting to reed canary grass.

Herbaceous layer is preventing tree seedlings establishment.

Other graminoids dominant (i.e. native rice cutgrass and native forbs (burred, arrowhead, bulrush, i.e. desirable marsh vegetation.)

Brian Loges (FWS)
Moist soil seed productions assessments.

Account for energy difference across plant species and dominance of undesirable vegetation.

Methodology uses a s10 m frame, cut seedheads scan area for mass/stem and stem per sq/meter for #'s/acre.

Results are found in a SharePoint dashboard that outlines the methods, summary table.

Why care about the seed production? Interested in how birds utilize these resources, resulting in a migration curve associated with an energy demand to answer "Was there enough food to support the need, a surplus or a demand! A daily food energy supply and demand.

Brian would be able to do this on state areas to look at production!

Guest Speaker – Dr. Brian Peer, Western Illinois University
Prothonotary Warbler (swamp warbler)
Life history

Flooded woods, swamps
Next month they will be arriving, i.e. April
The only warbler that nests in cavities so can put up artificial nesting structures
Food is less predictable due to climate change?

Have found an alarming coincidence in the last couple of years have observed all of the nestlings dead. Not enough biomass to feed to get to fledging?

In 2016 they were listed as a species of continental concern

Decreasing in the south but increasing in the north

Why the decline?

Mangrove deforestation on wintering grounds?
Loss of habitat on the breeding grounds?

Nest predators

Yes, but also nest competitors such as tree swallows.

Nest cavities can be limiting with increased competition thus reduced nesting or nest competitors.

Study question, investigate the relationship between the warbler and brown headed cowbird.

Found that the cowbird is only responding to the habitat type that we have created. The true culprit is the house wren where they have documented that 40% of warbler boxes were taken over by house wrens.

Cowbird nest choice.

Are you producing more house wrens in the boxes, or are they just destroying the eggs that is overall area competition of another songbird?

Another suspect, tree swallows. Tree swallows are known for killing each other and other species in competing for these boxes.

Guest Speaker – CJ Cowan, USDA Wildlife Services
Drones
Southern MO USDA use try to tie into our group and application.

USDA using drone technology utilizing a thermal signature to seek out feral pigs for eradication.
Also utilizing drones to "scare" predatory species, wolves and steers.
Applications to photo pre and post management actions, furbearer population monitoring, aerial treatments. Types of drones/application, cost
How to become a drone pilot – require an FFA drone pilot license, applicable state certifications depending on what you're doing (i.e. spraying).

New Business
Vegetation Sampling Proposals
First proposal
Waterfowl carrying capacity estimates for moist-soil wetlands in the Upper Mississippi River (see Brian Loges write up for additional information that should be captured in minutes)
15 -20 people needed.
Two days total, August 28 - September 25, 2024
Sites: Chatauqua NWR, Two Rivers NWR, Clarence Cannon NWR

Motion to support project: IA
Second: WI
Those in favor: ALL
Those opposed: NONE

Second proposal
Forest Inventory – navigation pool 11; Ben Vandermyde, USACE
Information will feed into NESP program opportunities.
Looking for 7-12 non foresters to be paired with 8-10 foresters (USACE)

Motion to support project: IA
Second: WI
Those in favor: ALL
Those opposed: NONE

Request for Chair to call a zoom meeting before fall meeting in order to discuss some topics not covered and to navigate the fall technical section meeting.

5:05 pm Adjourn.

UMRCC Wildlife Tech Section Meeting
10/5/23
Cuivre River State Park, Troy, MO

Attendance: 12
Meeting called to order at 8:30 am by acting Chair Curt Kemmerer (IA rep)
Introductions
Recreational use survey discussion

This continued a theme from the joint session yesterday. It was thought that information on public use may be beneficial to the wildlife management/public rec realm, just as it is for the fishing/public rec realm. Attendees had an informal discussion on how modern technology could be used to gain insight into uses on River and adjacent public lands/waters. However, several key points emerged during discussion:

The need for a clear objective first and foremost

The need to consult with Fisheries Tech Section for overlap opportunities so we do not duplicate effort.

Need to check on what types of data already exist.

What is the public use data going to feed into?

The bowfishing tournaments and night disturbance issue has been a recurring topic of interest. But, can we just grab information on that from Fisheries if they are doing a creel survey?

Again, we decided that we need to stay in communication with the Fish Tech Section regarding their direction and progress with these types of surveys. Try to piggy-back onto existing creels or other work in order to get data on hunting effort, etc. We should strive for a good way to standardize across the UMR/various agencies.
Veg Sampling presentation by Kyle Bales.

The comment was made that we may need to reach out to non-UMRCC members in order to solicit more veg sampling proposals.

UMRCC Bylaws – This topic was tabled and it was decided that we need a more formal presentation at the Spring Tech Section meeting (or whole group). Work with Neal to see which is more appropriate.
Presentation on Indiana bat research by Casey Wagnon of the University of Illinois-Urbana Champaign.
Meeting adjourned at 11:30 am.

Upper Mississippi River Conservation Committee: Wildlife Technical Section – Vegetation Committee Project Proposal.

Project Title

Waterfowl Carrying Capacity Estimates for Moist-soil Wetlands in the Upper Mississippi River System.

Project Point of Contact

Brian Loges, Zone Biologist, USFWS National Wildlife Refuge System
Brian_loges@fws.gov 364 Wildlife Conservation Road. Brussels, IL 62013

Project Objective(s)

This project will provide seed production and energy-day estimates for wetlands providing high energy habitats for migrating waterfowl. Estimates will build upon previous efforts to quantify seed production in the Upper Mississippi River System where production can be highly variable and often exceeds reference values for typical moist-soil production. Past evaluations have included multiple habitat restoration and enhancement projects (HREP) funded through the UMRR. When resources are available for seasonal bird surveys, the energy-day estimates will be evaluated against observed waterfowl use to predict energetic surplus or deficits at the management unit scale.

Total Project Timeframe and Key Dates

Chautauqua NWR's South Pool has been identified as the primary sampling site for 2024. Planning and coordination of field activities will begin in July with field work conducted in late August through September 2024. Processing of collected material will be completed at Two Rivers NWR in the weeks following sampling events. Seed production data entry and proofing occur during September-October 2024. Preliminary results on seed estimates and energy-days will be available October 2024. Final reports will be produced when complimented by bird surveys, with expected drafts by July 2025.

Specific dates UMRCC assistance will be needed

Two days total, roughly 6 hours per unit per 2-person team. Expected timing is August 28- Sept 25th. Additional dates or locations may be added as needed. Specific timing will be available the first week of August after the maturity of the target units' vegetation has been assessed.

Resource Needs

A single ATV or UTV per seed sampling team (2 person minimum). 1x1 meter Quadrats, storage bags, plant ID guide, and datasheets will be provided to each team. 1 smart phone or tablet with GIS or geoPDF capabilities per team, a small number of these can be provided.

Methodology

The wetlands targeted for these assessments are intensively managed moist-soil impoundments on National Wildlife Refuges (NWRs) or Corps of Engineers managed sites that provide high energy waterfowl sanctuary habitats during the fall migration.

Seed production of annual plants producing seed preferred by waterfowl will be assessed using the methods of Gray (2009). A minimum of ten, 1x1meter plots will be established either along one or multiple transects for areas of homogenous vegetation. Stem counts and representative seed heads (1 for each moist-soil species per plot) will be collected for the following moist-soil species: redroot flatsedge (*Cyperus erythrorhizos*), chufa flatsedge (*C. esculentus*) pinkweed (*Polygonum pensylvanicum*), nodding smartweed (*P. lapathifolium*) rice cutgrass (*Leersia oryzoides*), sprangeltop (*Leptochloa panicoides*), fall panicum (*Panicum dichotiflorum*) wild millet (*Echinochloa crus-galli/muricata*) and Walter's millet (*E. walterii*). If other species are encountered in abundance, we may have an opportunity to develop new models. Seed heads will be scanned by refuge staff with a leaf-area meter to measure square centimeters of inflorescence material per stem. Percent foliar cover estimates will also be made to closest 1% for each plant species or lowest identifiable taxa observed in the plots. Detailed descriptions of the methodology can be found in the technical reports for refuge assessments (Loges and Welchert 2021) and Riverlands Migratory Bird Sanctuary (Loges 2022).

Project Data Manager(s)

Brian Loges, Zone Biologist, USFWS National Wildlife Refuge System.
brian_loges@fws.gov

Data Management and Analysis Plan

Field data sheets will be entered into a provided and formatted excel datasheet by sampling team leads. Brian Loges will compile and proof the data into a single workbook prior to generating the production estimates. Reports (pdf) and a copy of archived datasets (csv) will be stored on ServCat, Fish & Wildlife Service Catalog. A sharepoint site operating with Power BI is available to provide data summary options across sites and years.

Project Deliverables

Preliminary reports of seed production and energy day estimates will be available in October through early November 2024. Reports pairing energy-day estimates to observed use-days will be completed by July 2025.

Citations:

Gray MJ, Foster MA, Peña Peniche LA. 2009. New technology for estimating seed production of moist-soil plants. Journal of Wildlife Management 73:1229 – 1232.
Loges BW and Welchert D 2021. Waterfowl Carrying Capacity Accounting in Intensively Managed Sanctuary Wetlands. USFWS Brussels, IL 38p.

Loges BW 2022. Waterfowl Carrying Capacity Assessment for Pintail Pond: Fall 2020 through Spring 2021 migration season. USFWS Brussels, IL 14p.

Upper Mississippi River Conservation Committee
Wildlife Technical Section – Vegetation Committee

Project Title
Forest Inventory – Navigation Pool 11: river miles 611 to 601.

Project Point of Contact
Benjamin Vandermyde
USACE – Rock Island District
Mississippi River Project
309-749-7420
Ben.j.vandermyde@usace.army.mil

Project Objective(s)
This project will provide current timber inventory data that is missing in Navigation Pool 11. Pool 11 last had data collection of forest conditions over 30 years ago. Significant changes in forest development and health have occurred over the last three decades requiring having a more current dataset. There will be two contracts covering data collection in the upper and lower portions of pool 11 during the 2024 field season. This project will focus data collection efforts on larger tracts of forest in the more central portion of the pool that are unable to be covered by those contracts. Collecting the timber inventory data across the entire pool in the same growing season will allow for a landscape scale of comprehension of current forest conditions across the entirety of the pool. This project will provide the ability to expand the extent of land included across the pool in identifying areas of decline or undesirable conditions to assist with understanding the priority of where to implement forest management.

Objective 1: Provide and share insight across natural resource disciplines on forest resources.
Objective 2: Cross training to non-foresters on methods of standard forest inventory protocol.
Objective 3: Individual team and group discussions on forest dynamics.
Objective 4: Documentation of current forest conditions on general plans lands.
Objective 5: Program neutral management informed decision making from collected data.

Total Project Timeframe and Key Dates
Duration of project is from September 2024 to March 2025. Planning and coordination of field activities begins in August 2024. Field work for UMRCC member involvement on approximately 500 acres would be conducted on September 17th and 18th 2024. Field data validation of UMRCC collected data will be conducted by Mississippi River Project staff (MVR-ODMN) following data collection. Brief update of completed field support effort reported out at Fall 2024 UMRCC wildlife technical section. Summary of findings from collected data and preliminary results reported out at Spring UMRCC Meeting 2025. Multiple years post UMRCC field efforts will result in forest management actions implemented.

Specific dates UMRCC assistance will be needed

Support from UMRCC members will be needed on two field days in September. Day one will be a full field day 0800 to 1600 (tentative date of September 17th). Day two will be a partial day to complete data gaps created during day one (tentative date of September 18th). The partial day field support will start at 0800 and end per crew ability depending on schedule with travel time. UMRCC members will be paired into 8 to 10 teams; at least one forester per team. This project would require assistance from 7 non-foresters and not to exceed 12 non-foresters.

Resource Needs

Forest inventory data will require timber cruising equipment from St. Paul, Rock Island, and St. Louis Districts river project field offices. Additional timber cruising equipment may be provided from partner agency offices that have equipment on hand.

- USACE field offices will provide 4 boats.
- UMRCC member support would include 5 additional boats with operators.

Methodology

Forest inventory will be collected using the UMR Regional Forestry PDT, Standard Phase II Forest Inventory Protocol. Forested areas >40 acres in size (both USACE and FWS fee title) from Turkey River Bottoms to the upper end of Bertom McCartney Lakes will be included in this data collection. All field data will be collected on devices capable to collect data in the correct format. No hand transcribing of data is required. Collected data will be stored and processed using the Forest Management Geodatabase (FMG).

Project Data Manager

Benjamin Vandermyde

Data Management and Analysis Plan

Data will be managed by the UMR Regional Forestry PDT and stored on the USACE FMG. UMR Regional Forestry PDT is currently working on making this database available to partner agencies. Only select members for the UMR Regional Forestry PDT will have write access.

Project Deliverables

The summary will include preliminary forest data analysis, reference area maps, treatment prescription overview, approximate implementation timeline, wildlife habitat considerations, and/or intended follow up monitoring efforts by local area management and reference gained understanding of forest health to the UMRCC Wildlife Technical Section. 842538